

AMENDMENTS TO THE DRAWINGS:

Replacement drawings are submitted for each of  
Figures 1-3 that more clearly present the reference numerals.

Attachment: Replacement Sheet

REMARKS

The application has been amended to place it in condition for allowance at the time of the next Official Action.

Replacement drawings are submitted for each of Figures 1-3. In the drawings, the reference numerals are replaced with identical reference numerals that are clearer than the original numerals to address the drawing objection noted on page 2 of the Official Action. No new matter is added.

Claims 1-21 are pending in the application.

Claims 1-9, 13, 14 and 21 were rejected under 35 USC 102(b) as being anticipated by LUBSEN et al. (US 4,382,552). That rejection is respectfully traversed.

The position set forth in the Official Action is that LUBSEN discloses a principal jet 3 including means for effecting first and second fractional distillations of liquid (24, 42).

However, the above characterization of LUBSEN is inconsistent with the disclosure of this reference.

LUBSEN relates to a liquid applicator for dispensing a chemical in dilute aqueous form and to a container for concentrated chemical for use with the applicator (see column 1, lines 4-7).

Specifically, the invention of LUBSEN involves a liquid applicator for dispensing a chemical in **dilute aqueous** form comprising in combination conduit means adapted at a first end thereof for connection with a source of **water under**

**pressure** and at a second end thereof for the discharge of said water containing a chemical in dilute aqueous form therein. (see column 1, lines 39-64).

In operation, the applicator of the LUBSEN invention is connected to a garden hose or other water source through coupling 3. If desired, a nozzle or other on-off water valve (not shown) may be inserted between the hose and the applicator. Valve 7 is then depressed so that water flows through passageway 5 across the first stage aspirator 23, mixes with and partially dilutes concentrated chemical from container 8 and fills container 9 with a premix. When container 9 is full, valve 7 is pressed upward to shunt the flow of water to passageway 6 where it flows across the second stage aspirator 41, further dilutes the premixed fluid from container 9 and discharges the finally diluted aqueous mixture as a spray past conically shaped deflector 4 at the exit end of the applicator. When the premixed fluid in container 9 is exhausted, additional premix is generated by appropriate adjustment of valve 7 (see column 3, lines 14-30).

Therefore, LUBSEN discloses a nozzle for spraying a liquid (a concentrate) into the atmosphere that comprises:

- a secondary jet (5) connected to means (30) for supplying said concentrate and including means (26, 23, 24) for diluting said concentrate with water into an expansion chamber (27);

- a principal jet (6) connecting to means **for generating a water flow** (3), including means (44) for effecting a fractional distillation of said water flow and an outlet orifice (4) to the atmosphere; and means (46, 47, 43) for connecting said secondary jet to said principal jet, connecting the expansion chamber (27) **downstream of the means** (44) for effecting a fractional distillation of said water flow.

LUBSEN does not disclose a principal jet connected to means for generating **a gaseous flow**, and no means for effecting a first or a second fractional distillation of the concentrate (liquid to be sprayed into the atmosphere).

In LUBSEN, the concentrate does not go through the means for fractional distillation (venturi 26 and 24) but only through flow channels (25 and 43), which are not means for effecting a fractional distillation of the liquid (to be sprayed) such as venturis.

Even the water that flows through the nozzle according to LUBSEN, only flows one time through a means for effecting a fractional distillation. That is, water flows through venturi 26 during the first step of the process (preparation of the premix), or during the second part of the process wherein a water flow passes through venturi 44.

This is totally different from the device according to the present invention, wherein a gaseous flow is used and wherein the liquid (to be sprayed) passes chronologically through two

venturis (1 and 3) where the liquid is fractionally distilled (before being sprayed).

In view of this, LUBSEN does not anticipate claim 1.

The dependent claims are believed to be patentable at least for depending from an allowable independent claim.

Claims 11 and 12 were rejected under 35 USC 103(a) as being unpatentable over LUBSEN in view of WANSON et al. FR 2,481,782. That rejection is respectfully traversed.

WANSON is only cited with respect to features of the dependent claims. WANSON does not overcome the shortcomings of LUBSEN set forth above with respect to claim 1. Since claims 11 and 12 depend from claim 1 and further define the invention, these claims are believed to be patentable at least for depending from an allowable independent claim.

Claims 15-19 were rejected under 35 USC 103(a) as being unpatentable over LUBSEN in view of ABPLANALP (US 4,382,552). That rejection is respectfully traversed.

Independent method claim 17 recites the steps of effecting a first fractional distillation of a liquid and effecting a second fractional distillation of the liquid. Claim 17 also recites a gaseous flow under pressure. As explained above, LUBSEN does not disclose **a gaseous flow**, and does not effect a first or a second fractional distillation of the liquid sprayed into the atmosphere. Accordingly, claim 17 is also believed to define over LUBSEN.

ABPLANALP is only recited with respect to features of the dependent claims. ABPLANALP does not overcome the shortcomings of LUBSEN set forth above with respect to claims 1 and 17. Since claims 15 and 16 depend from claim 1 and since claims 18 and 19 depend from claim 17 and further define invention, claims 15, 16, 18 and 19 are believed to be patentable at least for depending from an allowable independent claim.

Claim 20 was rejected under 35 USC 103(a) as being unpatentable over LUBSEN in view of ABPLANALP and further in view of WANSON. That rejection is respectfully traversed.

WANSON is only cited with respect to features of dependent claim 20. WANSON does not overcome the shortcomings of LUBSEN set forth above with respect to claim 17. Since claim 20 depends from claim 17 and further defines the invention, claim 20 is believed to be patentable at least for depending from an allowable independent claim.

In view of the present amendment and the foregoing Remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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**APPENDIX:**

The Appendix includes the following item(s):

☒ - Replacement Sheets for Figures 1-3 of the drawings